Recombinant ELF4 protein (His tag)

Catalog Number	548070
Synonyms	E74-like factor 4; Myeloid Elf-1-like factor
Species	Human
Expression System	E. coli
Accession	Q99607
Molecular Weight	Predictes a molecular mass of 12.42 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 12 kDa band.

Product Information

Sequence Region	208-296
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 208-296 aa (Q99607) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human ETS-related transcription factor Elf-4 (E74-like factor 4) fragment (amino acids 208-296) offers a stable and soluble unit ideal for structural studies, biochemical assays, and functional investigations of this key transcriptional regulator involved in immune response, inflammation, and cellular senescence. The full-length ETS-related transcription factor Elf-4 (ELF4) is a transcriptional activator that binds DNA sequences with the consensus 5'-WGGA-3'. It plays critical roles in hematopoietic growth factor gene regulation, transactivating promoters such as CSF2, IL3, IL8, and PRF1 in natural killer (NK) and CD8+ T cells. Elf-4 is essential for NK and NK T-cell development, innate immunity, and CD8+ T-cell proliferation and homing via Kruppel-like factors KLF4 and KLF2. It also regulates cellular senescence in a p53-dependent manner and can promote transformation by inhibiting the p16 pathway. In inflammation, Elf-4 acts as a transcriptional regulator, sustaining anti-inflammatory gene expression (e.g., IL1RN) while negatively regulating pro-inflammatory cytokines like IL17A, IL1B, IL6, TNFA, and CXCL1, and down-regulating TREM1 to dampen inflammatory responses. Subcellularly, Elf-4 localizes to the nucleus and PML bodies, with accumulation mediated by PML, highlighting its role in nuclear processes and protein interactions.